Amendments to the Claims

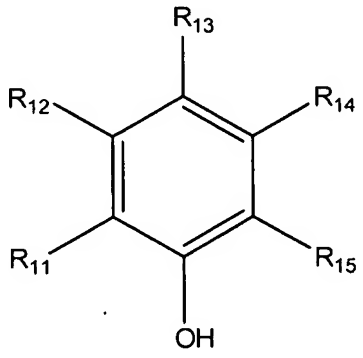
Please cancel Claims 1-63, 78-92 and 110-119. Please amend Claim 75. The Claim Listing below will replace all prior versions of the claims in the application:

Claim Listing

1.-63. (Canceled)

64. (Previously Presented) A method of preparing a phenolic polymer, comprising:

a) protecting at least one hydroxyl group of a substituted or unsubstituted phenol represented by Structural Formula (XXIX):



(XXIX),

wherein:

R_{11}, R_{12}, R_{13}, R_{14} and R_{15} are independently –H, -OH, -NH, -SH, a substituted or unsubstituted alkyl or aryl group, a substituted or unsubstituted alkoxycarbonyl or aryloxycarbonyl group, a substituted or unsubstituted alkoxy group or a saturated or unsaturated carboxylic acid group; or

R_{11}, R_{12}, R_{13}, R_{14} or R_{15}, in conjunction with an adjacent R_{11}, R_{12}, R_{13}, R_{14} or R_{15}, forms a substituted or unsubstituted alkylenedioxy group;

provided that at least one of R_{11}, R_{12}, R_{13}, R_{14} and R_{15} is a *tert*-butyl group 1-ethenyl-2-carboxylic acid or ester thereof, a substituted or unsubstituted alkylene dioxy group or a substituted or unsubstituted n-alkoxycarbonyl group, at least one of R_{11}, R_{12}, R_{13}, R_{14} and R_{15} is a hydroxyl group, and at least one of R_{11}, R_{12}, R_{13}, R_{14} and R_{15} is –H;

with a protecting group, wherein-thereby obtaining one or more protected hydroxyl groups; and

b) polymerizing the substituted or unsubstituted phenol,
thereby obtaining the phenolic polymer.

65. (Previously Presented) The method of Claim 64, wherein the substituted or unsubstituted phenol is an antioxidant.

66. (Original) The method of Claim 64, wherein the one or more protected hydroxyl groups are independently at least one of a functional group selected from the group consisting of an ether, ester, silyl ether, carbonate, phosphinate, carbamate, sulfonate, nitrate, phosphoramidate, borate ester, phosphinothioyl ester and sulfenate.

67. (Original) The method of Claim 66, wherein the functional group is an ether or an ester.

68. (Original) The method of Claim 67, wherein the functional group is an ester.

69. (Original) The method of Claim 68, wherein the protecting group is an acetyl group.

70. (Previously Presented) The method of Claim 64, wherein the substituted or unsubstituted phenol is polymerized using an enzyme or an enzyme mimetic.

71. (Previously Presented) The method of Claim 70, wherein the enzyme or enzyme mimetic polymerizes the substituted or unsubstituted phenol in the presence of hydrogen peroxide.

72. (Original) The method of Claim 70, wherein the enzyme or enzyme mimetic is peroxidase, laccase, tyrosinase, lipase, hematin, a tyrosinase-model complex or a metal-salen complex.

73. (Original) The method of Claim 72, wherein the enzyme is peroxidase.

74. (Previously Presented) The method of Claim 64, wherein the substituted or unsubstituted phenol is polymerized using a chemical reagent or light.

75. (Currently Amended) The method of Claim 64, further including the step of removing ~~at least a portion of~~ the protecting groups after polymerizing the substituted or unsubstituted phenol.

76. (Original) The method of Claim 64, wherein the phenolic polymer is an antioxidant.

77. (Original) The method of Claim 64, wherein the phenolic polymer is electrically conductive.

78.-93. (Canceled)

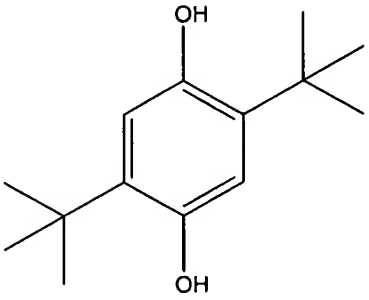
94. (Previously Presented) The method of Claim 64, wherein one or more of R_{12}, R_{14} and R_{15} is a *tert*-butyl group.

95. (Original) The method of Claim 94, wherein R_{11} is –H.

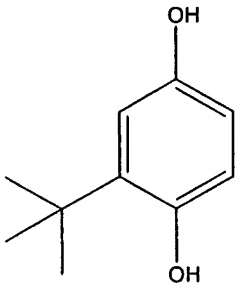
96. (Original) The method of Claim 95, wherein one or both of R_{14} and R_{15} are –H.

97. (Original) The method of Claim 96, wherein R_{13} is –H, -OH or a substituted or unsubstituted alkyl group.

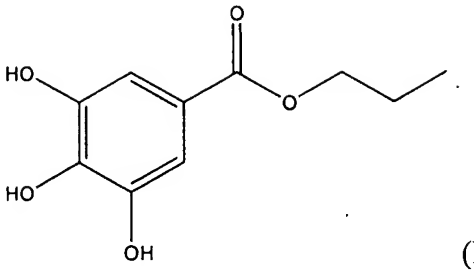
98. (Previously Presented) The method of Claim 64, wherein the substituted or unsubstituted phenol monomer includes at least one member selected from the group consisting of:



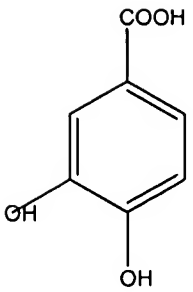
(XXXI),



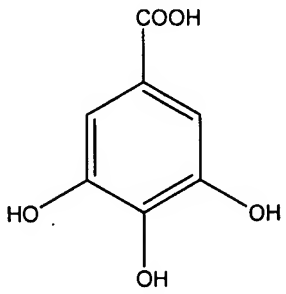
(XXXII),



(XXVI),



(XXVII) and



(XXVIII).

99. (Previously Presented) The method of Claim 64, wherein one of R_{11}, R_{12}, R_{13}, R_{14} and R_{15} is –OH and wherein both hydroxyl groups are protected by protecting groups, whereby one hydroxyl group is distal to the *tert*-butyl group, 1-ethenyl-2-carboxylic acid or ester thereof, substituted or unsubstituted alkylenedioxy group or substituted or unsubstituted n-alkoxycarbonyl group and one hydroxyl group is proximal to the *tert*-butyl group, 1-ethenyl-2-carboxylic acid or ester thereof, substituted or unsubstituted alkylenedioxy group or unsubstituted n-alkoxycarbonyl group.

100. (Original) The method of Claim 99, wherein the hydroxyl group distal to the *tert*-butyl group, 1-ethenyl-2-carboxylic acid or ester thereof, substituted or unsubstituted alkylene dioxy group or substituted or unsubstituted n-alkoxycarbonyl group is deprotected prior to polymerization.

101. (Original) The method of Claim 100, wherein the hydroxyl group distal to the *tert*-butyl group, 1-ethenyl-2-carboxylic acid or ester thereof, substituted or unsubstituted alkylene dioxy group is enzymatically deprotected.

102. (Original) The method of Claim 101, wherein lipase deprotects the hydroxyl group.

103. (Original) The method of Claim 100, wherein the hydroxyl group distal to the *tert*-butyl group, 1-ethenyl-2-carboxylic acid or ester thereof, substituted or unsubstituted alkylene dioxy group is chemically deprotected.

104. (Previously Presented) The method of Claim 64, wherein the protecting group is an acyl group.

105. (Original) The method of Claim 104, wherein the protecting group is an acetyl group.

106. (Previously Presented) The method of Claim 64, wherein the substituted or unsubstituted phenol monomer is polymerized using an enzyme or an enzyme mimetic.

107. (Previously Presented) The method of Claim 106, wherein the substituted or unsubstituted phenol monomer is polymerized using a peroxidase.

108. (Previously Presented) The method of Claim 64, wherein the substituted or unsubstituted phenol monomer is polymerized using a chemical reagent or light.

109. (Previously Presented) The method of Claim 64, further comprising the step of removing at least a portion of the protecting groups after polymerizing the monomer.

110.-119 (Canceled)